

Patent Claims

1. Hinge device (11, 20) with an arm (5) and two head pieces (2, 7) mounted to swivel/pivot on the ends of the arm (5) around respectively one axis, **thus characterized**, that the head pieces (2, 7) are respectively joined to revolve with one of the two belt pulleys (3, 6),
5 which are circumscribed by a common traction belt (4) on one circumferential surface, whereby at least one of the belt pulleys (3, 6) is not circular.
2. Hinge device (11, 20) according to claim 1, **thus characterized**, that in terms of the arm (5), the head pieces (2, 7) are swiveling/pivotal between two end positions, whereby in a first of these end positions, the spacing distance of a first point of incidence (12, 13), at which the traction belt (4) meets with the first belt pulley (3), from the first rotational axis of a first belt pulley (3) is smaller than the spacing distance of a second point of incidence (14, 15), at which the traction belt (4) meets with the second belt pulley (6), from the second rotational axis of the second pulley (6), and that in the second end position, the spacing distance of the first point of incidence (12, 13) from the first rotational axis is greater than the spacing distance of the second point of incidence (14, 15) from the second axis.
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3. Hinge device (11, 20) according to one of the previous claims, **thus characterized**, that the non-circular belt pulley (3) is elliptical.
4. Hinge device (11, 20) according to one of the previous claims, **thus characterized**, that one of the belt pulleys (6) is circular.
5. Hinge device (11, 20) according to one of the claims 1 through 3, **thus characterized**, that both belt pulleys (3, 6) are elliptical.

6. Hinge device (11, 20) according to claim 4 or 5, **thus characterized**, that both belt pulleys (3, 6) have the same circumferential length.
7. Hinge device (11, 20) according to claim 6, **thus characterized**, that in a position of the first belt pulley (3), in which the points of incidence (12, 13) of the belt (4) on the first belt pulley (3) are the points of intersection of the long axis (L) with the circumference of the ellipse, the points of incidence (14, 15) on the other belt pulley (6) respectively lie on the points of intersection of the short axis (K) with the circumference.
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8. Hinge device (20) according to one of the previous claims, **thus characterized**, that the arm (5) is angled and the traction belt (4) is guided between the belt pulleys (3, 6) by two rollers (21).
9. Hinge device (11, 20) according to one of the previous claims, thus characterized, that one of the head pieces (2) is mounted to the door (1) and that the other (7) is mounted to the body (8) of a motor vehicle.